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New patent claims:

1. A mold-release agent for demolding moldings on molding tools during molding processes, where the mold-release agent is not mixed, prior to the molding process, with the polymeric material used to produce these moldings, characterized in that the mold-release agent comprises microparticles with a size of from 0.02 to 100 μm , the microparticles being selected from metal oxides and/or silicas, and having hydrophobic properties.
2. The mold-release agent as claimed in claim 1, characterized in that the microparticles have hydrophobic properties as a result of treatment with a suitable compound.
3. The mold-release agent as claimed in any of claims 1 to 2, characterized in that the microparticles are nanostructured microparticles which have a fine structure with elevations with an aspect ratio greater than 1.
4. The mold-release agent as claimed in any of claims 1 to 3, characterized in that the mold-release agent comprises the microparticles suspended in a liquid.
5. The mold-release agent as claimed in claim 4, characterized in that the mold-release agent comprises the microparticles suspended in a liquid selected from alcohols, ketones, and ethers.
6. The mold-release agent as claimed in any of claims 1 to 5, suitable as a mold-release agent for demolding

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injection moldings from injection molds during the injection-molding process.

7. A process for producing moldings by the molding of
5 molding compositions comprising polymeric compounds,
using a mold-release agent as claimed in any of claims
1 to 6,
characterized in that
the mold-release agent is applied to a molding tool
10 prior to a molding step, and then a molding step is
carried out in which the extent to which at least 50%
of the particles are impressed by the molding tool into
a surface of the molding produced is not more than 90%
of their diameter.

15 8. The process as claimed in claim 7,
characterized in that
the mold-release agent is applied to the molding tool
by spraying.

20 9. The process as claimed in claim 8,
characterized in that
the mold-release agent is applied to the molding tool
by applying, to the molding tool, a suspension which
25 comprises microparticles and a solvent, and then
evaporating the solvent.

10. The process as claimed in claim 8,
characterized in that
30 the mold-release agent is applied to the molding tool
by applying an aerosol which comprises microparticles
and a propellant gas.

11. The process as claimed in at least one of claims 7
35 to 10,
characterized in that
the microparticles used have an average particle
diameter of from 0.02 to 100 μm .

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12. The process as claimed in at least one of claims 7 to 11, characterized in that

5 in the molding process use is made of a polymer or polymer blend based on polycarbonates, on poly(meth)acrylates, on polyamides, on polyvinyl chloride, on polyethylenes, on polypropylenes, on aliphatic linear or branched polyalkenes, on cyclic

10 polyalkenes, on polystyrenes, on polyesters, on polyether sulfones, on polyacrylonitrile, or on polyalkylene terephthalates, on poly(trifluoroethylene), on poly(vinylidene fluoride), on poly(chlorotrifluoroethylene), on

15 poly(hexafluoropropylene), on poly(perfluoropropylene oxide), on poly(fluoroalkyl acrylate), on poly(fluoroalkyl methacrylate), on poly(vinyl perfluoroalkyl ether), or on other polymers selected from perfluoroalkoxy compounds, poly(isobutene), poly(4-

20 methyl-1-pentene), polyoxymethylenes, ABS, polyisoprene, polychloroisoprene, synthetic or natural rubber, polynorbornene in the form of homo- or copolymer, and mixtures of these.

25 13. The process as claimed in at least one of claims 7 to 12, characterized in that

the molding process has been selected from injection molding, calendering, extrusion, sheet extrusion,

30 thermoforming, and blow molding.

14. The process as claimed in claim 13, characterized in that

the mold-release agent is applied to the inner surfaces

35 of the injection mold, thermoforming mold, or blow mold during injection molding, thermoforming or blow molding, or to the surface of a molding roll during calendering, extrusion or sheet extrusion.

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15. A molding with a surface which has self-cleaning properties and has surface structures with elevations, produced by a process as claimed in any of claims 7 to 14.

16. A molding produced using a mold-release agent as claimed in any of claims 1 to 6 to demold the molding from a mold.

17. The molding as claimed in claim 15 or 16, selected from vessels, lampshades, buckets, storage vessels, drums, dishes, measuring beakers, funnels, tanks, tires, and housing parts.

18. A tire produced using a mold-release agent as claimed in any of claims 1 to 6 for demolding the tire from the tire press after vulcanization.